

REMARKS

Applicants, by the amendments presented above, have made a concerted effort to present claims which more clearly define over the prior art of record, and thus to place this case in condition for allowance.

5 Applicants acknowledge with appreciation the indicated allowance of claims 2, 4 and 7-10 if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Claims 1, 3, 5 and 6 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by UK Patent Application No. 2 252 515 to Zwaan. Applicant submits that Zwaan does not
10 anticipate the amended claims and cannot be modified to render obvious the amended claims. Reconsideration and withdrawal of the rejection in view of the amendments made herein are requested.

Claim 1 has been amended to specify “an enclosing outer wall defining a flexible gases passageway between said inlet and said outlet, at least a region of said enclosing outer wall being
15 of a material that allows the passage of water vapour without allowing the passage of liquid water or respiratory gases through said enclosing outer wall” and “a heater wire located within said passageway”. The only enclosing wall present in Zwaan which includes a region of breathable material is the envelope made from GORE-TEX® material. However, this is a water compartment and is therefore not a gases passageway as claimed. Further, the water compartment
20 of Zwaan does not include an inlet and an outlet as claimed, and neither is it an outer wall as claimed. The *Oxford English* dictionary defines “enclose” as “surround or close off on all sides”. While the claim only requires part of the wall to be of a breathable material, it also requires that

the wall define a flexible gases passageway, and that it be an enclosing *outer* wall. Only the casing of Zwaan could be an “enclosing outer wall” as claimed. At least for this reason, amended claim 1 is novel over Zwaan.

In addition, the object of the present invention is to reduce condensation build-up by allowing water vapour to escape through the outer wall of the conduit. The object and function of the present invention is one of dehydration. In contrast, Zwaan describes a humidifier. These functions are opposite, and as a result a person skilled in the art could not be taught nor motivated to adapt Zwaan and arrive at the claimed invention. Applicant therefore submits that the claimed invention is not obvious in view fo Zwaan.

Furthermore, Applicant respectfully disagrees with the Examiner that “... hollow body 1 is made of plastic and palstic [sic] is flexible...” implying that therefore Zwaan discloses a flexible gases passageway as claimed. The property of “flexibility” is not defined solely by material choice as the Examiner insists. If this were true, then aluminum foil (of the type commonly used in baking) would be rigid because it is made of metal. Clearly, this is fundamentally flawed reasoning because aluminum foil is far from rigid.

Similarly, an ordinary ‘highlighter’ pen is constructed from cheap and thin plastic material, but cannot be bent by hand. It is not flexible, despite being made from low modulus plastic and having thin walls. Importantly, a highlighter pen has a similar size and shape as the breathing tube of the present invention, so it follows that the ‘property’ of ‘flexibility’ must dictated by more than merely material choice as the Examiner alleges. Applicant submits that being made of plastic is not the same as being flexible. More complicated issues such as bending and buckling are involved.

Indeed, the material property (i.e. it is made of plastic) the Examiner relies on, is at best only half the story, and the position taken by the Examiner is factually incorrect. An object's flexibility (called 'flexural stiffness' or 'flexural rigidity' in engineering beam bending theory) is dictated by two factors. In simple terms, the important factors are: what the object is made of, and the shape of the object. In more precise terms, the factors are: material property (Young's modulus) and geometry (specifically the second moment of area).

Importantly, the second moment of area (for a round bar) is related to the diameter to the 4th power ($I = \pi \cdot D^4 / 64$). As a result, the geometry of an object is arguably far more important to flexibility than the material from which it is made. A publication from the Internet is enclosed, which provides a simple summary of engineering bending theory (see 3rd and 4th paragraphs under the heading Introduction).

Nowhere in Zwaan does it suggest that the "hollow casing" is flexible. As a matter of fact, the apparatus of Zwaan is not flexible. Applicant encloses a sample of the Zwaan product for the Examiner's study (the Zwaan product also being made by the present assignee). As it can be quite clearly seen, the casing is not flexible, despite being made of plastic (this is the only possible "enclosing outer wall" as claimed). If possible, Applicant would like to have enclosed sample of the Zwaan product returned to the undersigned after the Examiner has had the opportunity to study it.

The apparatus disclosed in Zwaan is required to support the envelope made from GORE-TEX® material and the heater, to accept electrical and water connections at locations along its length, and to accept connection to flexible breathing conduits at the inlet and outlet. A person of ordinary skill in the art would immediately recognize that a degree of rigidity is required to

facilitate these connections. Applicant submits that the size, shape, and wall thickness of the apparatus disclosed in Zwaan would be understood by a person of ordinary skill in the art to be a casing having a degree of rigidity which lies outside of the scope of the present claims on the broadest reasonable interpretation. Further, as the Examiner notes, the fins 35, 14 and 15 of Zwaan are described as providing structural support and rigidity to the assembled apparatus (Col. 2, lines 65-68). The Zwaan apparatus is clearly not flexible. There is nothing in Zwaan to suggest that the apparatus described is flexible, and as a result the claims of the present application are not anticipated by Zwaan.

Further, the teaching of Zwaan and the present application are so disparate, that a person of ordinary skill in the art could not adapt Zwaan and arrive at the present invention without considerable inventive step.

Therefore, Applicants submit that Zwaan does not anticipate amended claim 1 and cannot be modified to render obvious amended claim 1. Reconsideration and withdrawal of the rejection is requested. Allowance of claim 1 is requested.

Claims 3, 5 and 6 are dependent upon claim 1, which Applicants submit is in condition for allowance. Therefore, Applicants submit that claims 3, 5 and 6 are allowable. Reconsideration and allowance is requested.

With further regard to claim 3, which requires that the heater wire “lies freely” to “settle over at least some low points”, Zwaan clearly discloses a water compartment (and heater inside) supported within the casing so that the heater does not “lie freely” or “settle” (Col. 2, line 38-44). This allow the heater wire in the present invention to settle at low points in the conduit where condensed water vapour may collect so that the collected condensed water vapour can be re-

evaporated by the heater wire. Zwaan clearly does not allow the heater to lie freely and cannot perform this function. Accordingly, Applicant submits that claim 3 is novel over Zwaan.

Reconsideration and allowance is requested.

A Petition for a Three-Month Extension of Time is concurrently submitted herewith to
5 extend the date for response up to and including December 4, 2007.

A Request for Continued Examination is concurrently submitted herewith to ensure consideration of this Amendment.

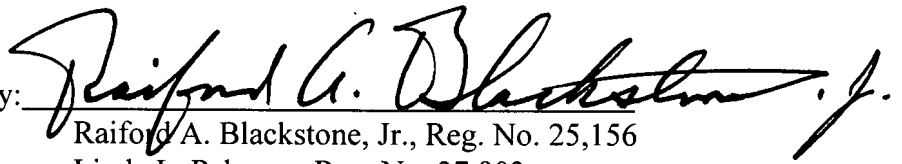
In view of the above Amendments and Remarks, Applicants respectfully submit that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner
10 have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

15 Dated:

Dec. 4, 2007

By:



Raiford A. Blackstone, Jr., Reg. No. 25,156
Linda L. Palomar, Reg. No. 37,903

20 TREXLER, BUSHNELL, GIANGIORGI,
BLACKSTONE & MARR, LTD.
105 W. Adams Street, 36th Floor
Chicago, Illinois 60603